

Ebola Virus Disease Response

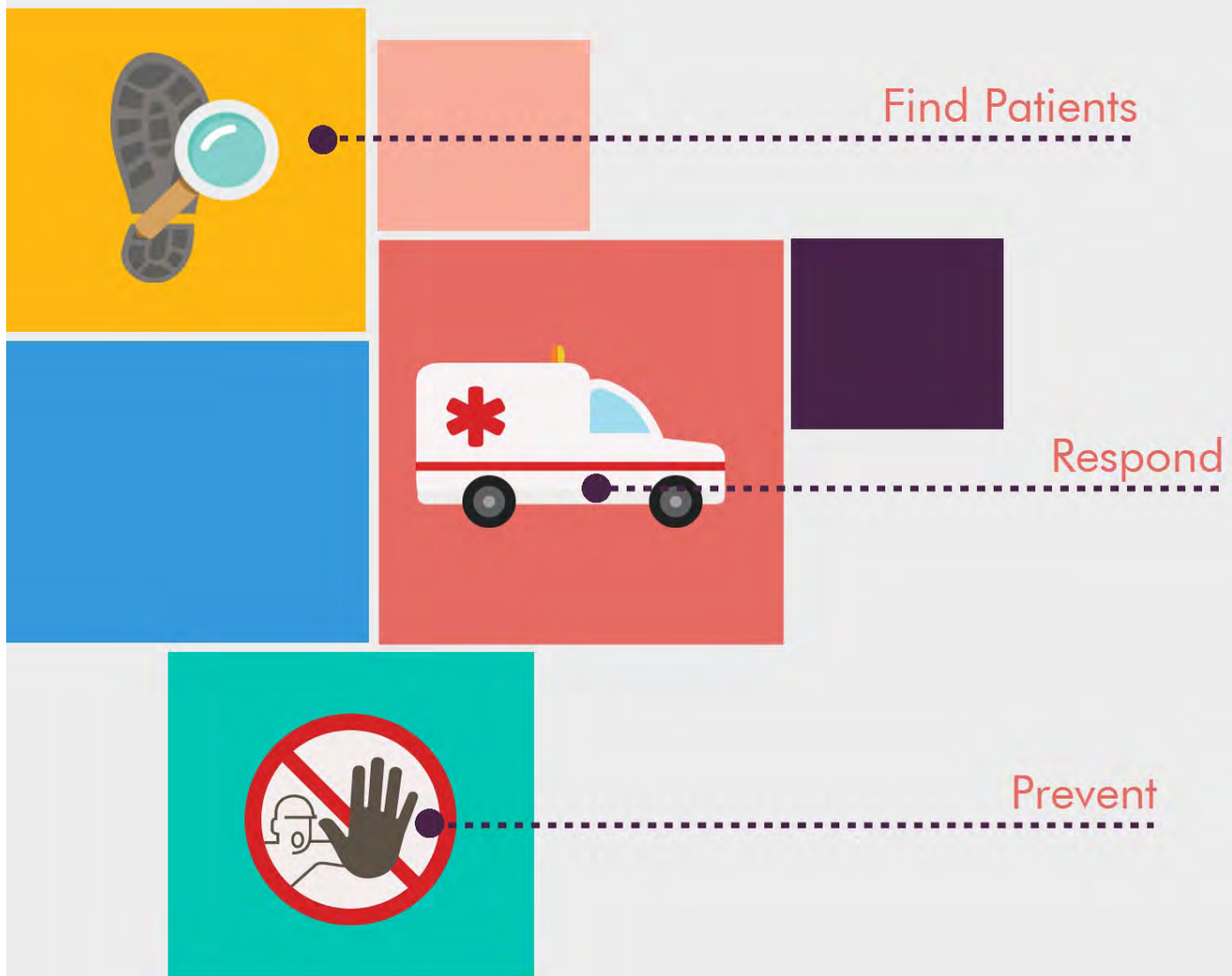


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Ebola Virus Disease Resources

Below is a list of guidelines recommended for managing Ebola response and infection control.

For full details of the recommended precautions, click on the links. As information becomes available, these recommendations will be re-evaluated as needed. Be sure to check CDC and WHO for more updates.

For additional consultation:

- **HOSPITALS/ HEALTHCARE FACILITIES**- contact your [Local Health Department](#)
- **LOCAL HEALTH DEPARTMENTS**- contact [Arizona Department of Health Services \(ADHS\)](#) at (602) 364-3676 or (480) 303-1191 (After Hours Emergency)
- **ADHS**- contact [CDC Emergency Operations Center \(EOC\)](#)

I. Situational Awareness

- a. Countries affected
<http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/distribution-map.html#areas>
- b. Current case count
<http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/index.html>
- c. CDC response
<http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/what-cdc-is-doing.html>
- d. New to CDC webpage
<http://www.cdc.gov/vhf/ebola/outbreaks/2014-west-africa/whats-new.html>

II. Ebola Information

- a. Signs and symptoms
<http://www.cdc.gov/vhf/ebola/symptoms/index.html>
- b. Transmission
<http://www.cdc.gov/vhf/ebola/transmission/index.html>
- c. Prevention
<http://www.cdc.gov/vhf/ebola/prevention/index.html>
- d. Risk of exposure
<http://www.cdc.gov/vhf/ebola/exposure/index.html>
- e. Case definition
<http://www.cdc.gov/vhf/ebola/hcp/case-definition.html>

III. Health Departments

- a. [Decision Guide for Testing](#)
- b. [Screening Criteria](#) and [Algorithm for Returned Travelers](#)
- c. Laboratory guidance for diagnosis
<http://www.who.int/csr/resources/publications/ebola/laboratory-guidance/en/>
- d. Guidance for specimen collection, transport, testing, and submission
<http://www.cdc.gov/vhf/ebola/hcp/interim-guidance-specimen-collection-submission-patients-suspected-infection-ebola.html> and [Factsheet](#)
- e. Guidance on contact tracing
<http://www.cdc.gov/vhf/ebola/hcp/monitoring-and-movement-of-persons-with-exposure.html>
- f. Food safety and Ebola Virus Disease
<http://www.who.int/csr/disease/ebola/note-ebola-food-safety/en/>
- g. Protective measures for general public
<http://www.who.int/csr/disease/ebola/what-you-need-to-know/en/>
- h. Guidance on Monitoring and Movement on Persons with Ebola Virus Disease exposure
<http://www.cdc.gov/vhf/ebola/hcp/monitoring-and-movement-of-persons-with-exposure.html>
- i. Information Systems: CDC's Epi-X system
<http://www.cdc.gov/epix/> or CDC HANs <http://emergency.cdc.gov/han/>

IV. First Responders

- a. Checklist for EMS regarding Ebola preparedness
<http://www.cdc.gov/vhf/ebola/pdf/ems-checklist-ebola-preparedness.pdf>
- b. Guidance for EMS systems and 9-1-1 for patient management
<http://www.cdc.gov/vhf/ebola/hcp/interim-guidance-emergency-medical-services-systems-911-public-safety-answering-points-management-patients-known-suspected-united-states.html>
- c. Infection prevention and control for known or suspected patients
<http://www.cdc.gov/vhf/ebola/hcp/infection-prevention-and-control-recommendations.html>
- d. Putting on PPE
http://www.who.int/csr/disease/ebola/put_on_ppequipment.pdf?ua=1 or
<http://www.cdc.gov/vhf/ebola/pdf/ppe-poster.pdf>
- e. Removing PPE
http://www.who.int/csr/disease/ebola/remove_ppequipment.pdf?ua=1
- f. Collecting blood samples from persons suspected to be infected
<http://www.who.int/csr/resources/publications/ebola/blood-collect-en.pdf?ua=1>
- g. Treatment
<http://www.cdc.gov/vhf/ebola/treatment/index.html>
- h. Air medical transport guidance
<http://www.cdc.gov/vhf/ebola/hcp/guidance-air-medical-transport-patients.html>
- i. Tools for Protecting Healthcare Personnel
<http://www.cdc.gov/HAI/prevent/ppe.html>
- j. Information Systems: CDC HANs
<http://emergency.cdc.gov/han/>

V. Healthcare Workers

- a. Checklist for healthcare facilities regarding Ebola preparedness
<http://www.cdc.gov/vhf/ebola/pdf/healthcare-facility-checklist-for-ebola.pdf>
- b. FAQ for healthcare workers about safe management of patients with Ebola Virus Disease in US hospitals
<http://www.cdc.gov/vhf/ebola/hcp/patient-management-us-hospitals.html>
- c. Infection prevention and control for known or suspected patients
<http://www.cdc.gov/vhf/ebola/hcp/infection-prevention-and-control-recommendations.html>
- d. Environmental infection control in hospitals
<http://www.cdc.gov/vhf/ebola/hcp/environmental-infection-control-in-hospitals.html>
- e. Checklist for patient evaluation
<http://www.cdc.gov/vhf/ebola/pdf/checklist-patients-evaluated-us-evd.pdf>
- f. Putting on PPE
http://www.who.int/csr/disease/ebola/put_on_ppequipment.pdf?ua=1 or
<http://www.cdc.gov/vhf/ebola/pdf/ppe-poster.pdf>
- g. Removing PPE
http://www.who.int/csr/disease/ebola/remove_ppequipment.pdf?ua=1
- h. Collecting blood samples from persons suspected to be infected
<http://www.who.int/csr/resources/publications/ebola/blood-collect-en.pdf?ua=1>
- i. Diagnosis and laboratory tests
<http://www.cdc.gov/vhf/ebola/diagnosis/index.html>
- j. Laboratory guidance for diagnosis
<http://www.who.int/csr/resources/publications/ebola/laboratory-guidance/en/>
- k. Guidance for specimen collection, transport, testing, and submission
<http://www.cdc.gov/vhf/ebola/hcp/interim-guidance-specimen-collection-submission-patients-suspected-infection-ebola.html>
- l. Treatment
<http://www.cdc.gov/vhf/ebola/treatment/index.html>
- m. Handling human remains
<http://www.cdc.gov/vhf/ebola/hcp/guidance-safe-handling-human-remains-ebola-patients-us-hospitals-mortuaries.html>
- n. Ebola Virus Disease Information for Clinicians in U.S. Healthcare Settings
<http://www.cdc.gov/vhf/ebola/hcp/clinician-information-us-healthcare-settings.html>
- o. Clinician Outreach and Communication Activity
http://emergency.cdc.gov/coca/calls/2014/callinfo_080514.asp
- p. Tools for Protecting Healthcare Personnel
<http://www.cdc.gov/HAI/prevent/ppe.html>
- q. Information Systems: CDC HANs
<http://emergency.cdc.gov/han>

Decision Guide for CDC Consultation and Ebola Virus Disease (EVD) Testing

Does patient meet **ANY** of the following within 21 days before symptom onset?

High Risk Exposure

- Percutaneous or mucous membrane exposure or direct skin contact with body fluids of a person with a confirmed or suspected case of EVD without appropriate personal protective equipment (PPE)

OR

- Laboratory worker processing body fluids of confirmed EVD patients without appropriate PPE or standard biosafety precautions

OR

- Participation in funeral rites which include direct exposure to human remains in the geographic area where outbreak is occurring without appropriate PPE

YES

Fever?

Other Symptoms?

Blood Work

Normal Blood Work?

Abnormal Blood Work?

YES

YES

NO TEST

OPTIONAL TEST

YES TEST

Low Risk Exposure

- Providing patient care (without known high-risk exposure) or contact with EVD patients in health care facilities in outbreak-affected countries* ?
- OR
- Household member or close contact** of an EVD patient?

YES

Fever?

Other Symptoms?

Blood Work

Normal Blood Work?

Abnormal Blood Work?

YES

YES

NO TEST

OPTIONAL TEST

YES TEST

YES TEST

Testing Indicated:
Call CDC
(770-488-7100) for
consultation and approval

OPT TEST

Optional Test, if other clinically-
compatible diagnosis ruled out:
Call CDC (770-488-7100) for
consultation and approval

NO TEST

Testing not Indicated:
See **Monitoring and
Movement Guidance** for
additional restrictions

DEFINITIONS

Fever:

- Defined as $\geq 101.5^{\circ}\text{F}$ (38.6°C)

Other Symptoms Include:

- Intense weakness
- Headache and sore throat
- Internal or external bleeding
- Impaired kidney and liver function
- Muscle pain
- Vomiting
- Diarrhea

Abnormal Blood Work:

- Platelet count $<150\text{K}$
- Prolonged PT/PTT
- AST/ALT elevation

Specimens received at CDC without prior consultation will not be tested.

Testing may be delayed if tracking information is not provided.

Note: Malaria diagnostics should be a part of initial testing because it is the most common cause of febrile illness in persons with a travel history to the affected countries.

* Outbreak updates and affected countries found at: <http://www.cdc.gov/vhf/ebola/outbreaks/guinea/index.html>

** Case definitions can be found here: <http://www.cdc.gov/vhf/ebola/hcp/case-definition.html>



+Special thanks to the Michigan Department of Community Health for their work on the decision guide



Ebola Virus Disease (EVD) Screening

Emergency Department screening criteria for patient isolation/testing are likely to be:

- 1.** Fever, headache, joint and muscle aches, weakness, fatigue, diarrhea, vomiting, stomach pain and lack of appetite, and in some cases bleeding.

AND

- 2.** Travel to West Africa (Guinea, Liberia, Nigeria, Senegal, Sierra Leone or other countries where EVD transmission has been reported by WHO) within 21 days (3 weeks) of symptom onset.

If both criteria are met, then the patient should be moved to a private room with a bathroom, and STANDARD, CONTACT, and DROPLET precautions followed during further assessment.

IMMEDIATELY Report Person Under Investigation (PUI) for Ebola to:

1. Hospital Leadership:
2. Local and State Public Health Authorities:
3. U.S. Centers for Disease Control and Prevention (CDC) by calling the CDC Emergency Operations Center (EOC) at 770-488-7100 or via email at eocreport@cdc.gov .

Sources: <http://www.cdc.gov/vhf/ebola/hcp/case-definition.html>, <http://www.bt.cdc.gov/han/han00364.asp>,
<http://www.cdc.gov/vhf/ebola/hcp/infection-prevention-and-control-recommendations.html>

Ebola Virus Disease (EVD)

Algorithm for Evaluation of the Returned Traveler



FEVER (subjective or $\geq 101.5^{\circ}\text{F}$ or 38.6°C) or compatible EVD symptoms* in patient who has traveled to an Ebola-affected area** in the 21 days before illness onset

* headache, weakness, muscle pain, vomiting, diarrhea, abdominal pain or hemorrhage

NO

Report asymptomatic patients with high- or low-risk exposures (see below) in the past 21 days to the health department

YES

1. Isolate patient in single room with a private bathroom and with the door to hallway closed
2. Implement standard, contact, and droplet precautions (gown, facemask, eye protection, and gloves)
3. Notify the hospital Infection Control Program and other appropriate staff
4. Evaluate for any risk exposures for EVD
5. IMMEDIATELY report to the health department

HIGH-RISK EXPOSURE

Percutaneous (e.g., needle stick) or mucous membrane contact with blood or body fluids from an EVD patient

OR

Direct skin contact with, or exposure to blood or body fluids of, an EVD patient

OR

Processing blood or body fluids from an EVD patient without appropriate personal protective equipment (PPE) or biosafety precautions

OR

Direct contact with a dead body (including during funeral rites) in an Ebola affected area** without appropriate PPE

LOW-RISK EXPOSURE

Household members of an EVD patient and others who had brief direct contact (e.g., shaking hands) with an EVD patient without appropriate PPE

OR

Healthcare personnel in facilities with confirmed or probable EVD patients who have been in the care area for a prolonged period of time while not wearing recommended PPE

NO KNOWN EXPOSURE

Residence in or travel to affected areas** without HIGH- or LOW-risk exposure

Review Case with Health Department Including:

- Severity of illness
- Laboratory findings (e.g., platelet counts)
- Alternative diagnoses

EVD suspected

EVD not suspected

TESTING IS INDICATED

The health department will arrange specimen transport and testing at a Public Health Laboratory and CDC

The health department, in consultation with CDC, will provide guidance to the hospital on all aspects of patient care and management

TESTING IS NOT INDICATED

If patient requires in-hospital management:

Decisions regarding infection control precautions should be based on the patient's clinical situation and in consultation with hospital infection control and the health department

If patient's symptoms progress or change, re-assess need for testing with the health department

If patient does not require in-hospital management

Alert the health department before discharge to arrange appropriate discharge instructions and to determine if the patient should self-monitor for illness

Self-monitoring includes taking their temperature twice a day for 21 days after their last exposure to an Ebola patient



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Health and Human Services
Centers for Disease
Control and Prevention

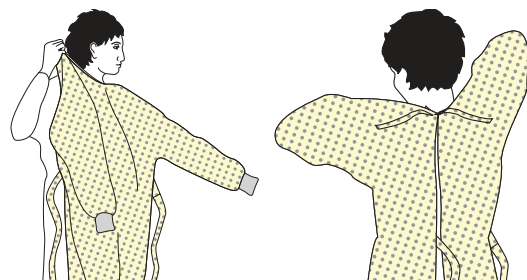
** CDC Website to check current affected areas: www.cdc.gov/vhf/ebola

SEQUENCE FOR **PUTTING ON** PERSONAL PROTECTIVE EQUIPMENT (PPE)

The type of PPE used will vary based on the level of precautions required, such as standard and contact, droplet or airborne infection isolation precautions. The procedure for putting on and removing PPE should be tailored to the specific type of PPE.

1. GOWN

- Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back
- Fasten in back of neck and waist



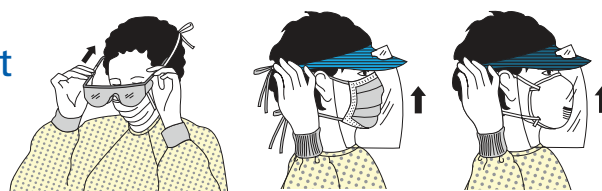
2. MASK OR RESPIRATOR

- Secure ties or elastic bands at middle of head and neck
- Fit flexible band to nose bridge
- Fit snug to face and below chin
- Fit-check respirator



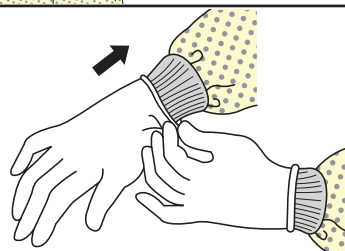
3. GOGGLES OR FACE SHIELD

- Place over face and eyes and adjust to fit



4. GLOVES

- Extend to cover wrist of isolation gown



USE SAFE WORK PRACTICES TO PROTECT YOURSELF AND LIMIT THE SPREAD OF CONTAMINATION

- Keep hands away from face
- Limit surfaces touched
- Change gloves when torn or heavily contaminated
- Perform hand hygiene



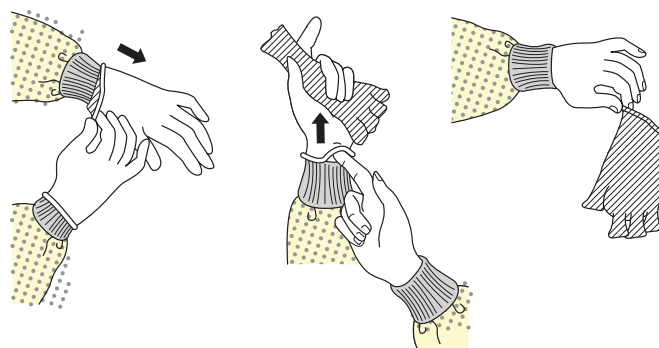
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SEQUENCE FOR REMOVING PERSONAL PROTECTIVE EQUIPMENT (PPE)

Except for respirator, remove PPE at doorway or in anteroom. Remove respirator after leaving patient room and closing door.

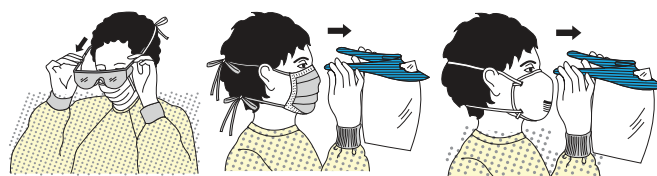
1. GLOVES

- Outside of gloves is contaminated!
- Grasp outside of glove with opposite gloved hand; peel off
- Hold removed glove in gloved hand
- Slide fingers of ungloved hand under remaining glove at wrist
- Peel glove off over first glovet
- Discard gloves in waste container



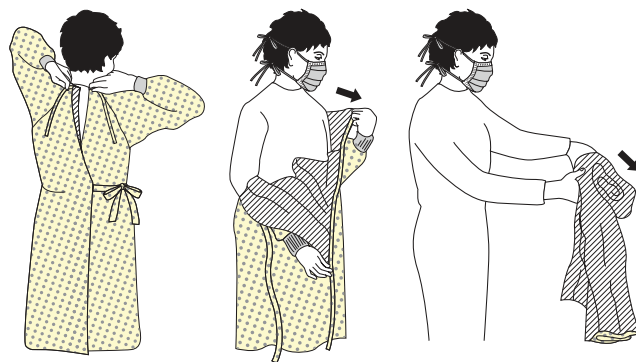
2. GOGGLES OR FACE SHIELD

- Outside of goggles or face shield is contaminated!
- To remove, handle by head band or ear pieces
- Place in designated receptacle for reprocessing or in waste container



3. GOWN

- Gown front and sleeves are contaminated!
- Unfasten ties
- Pull away from neck and shoulders, touching inside of gown only
- Turn gown inside out
- Fold or roll into a bundle and discard



4. MASK OR RESPIRATOR

- Front of mask/respirator is contaminated — DO NOT TOUCH!
- Grasp bottom, then top ties or elastics and remove
- Discard in waste container



**PERFORM HAND HYGIENE BETWEEN STEPS
IF HANDS BECOME CONTAMINATED AND
IMMEDIATELY AFTER REMOVING ALL PPE**



Specimen Collection, Transport, Testing, and Submission for Patients with Suspected Infection with Ebola Virus Disease

NOTIFICATION & CONSULTATION

Hospitals should follow their state and/or local health department procedures for notification and consultation for Ebola testing requests before contacting CDC.

CDC cannot accept any specimens without prior consultation.

FOR CONSULTATION, CALL THE CDC EMERGENCY OPERATIONS CENTER AT

770-488-7100



WHEN SPECIMENS SHOULD BE COLLECTED FOR EBOLA TESTING



Ebola virus is detected in blood only after the onset of symptoms, usually fever. It may take up to 3 days after symptoms appear for the virus to reach detectable levels. Virus is generally detectable by real-time RT-PCR from 3-10 days after symptoms appear.

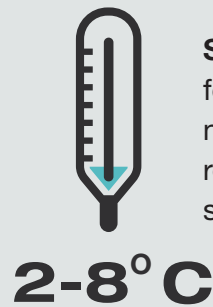
Ideally, specimens should be taken when a symptomatic patient reports to a healthcare facility and is suspected of having an Ebola exposure. However, if the onset of symptoms is <3 days, a later specimen may be needed to completely rule-out Ebola virus, if the first specimen tests negative.



PREFERRED SPECIMENS FOR EBOLA TESTING

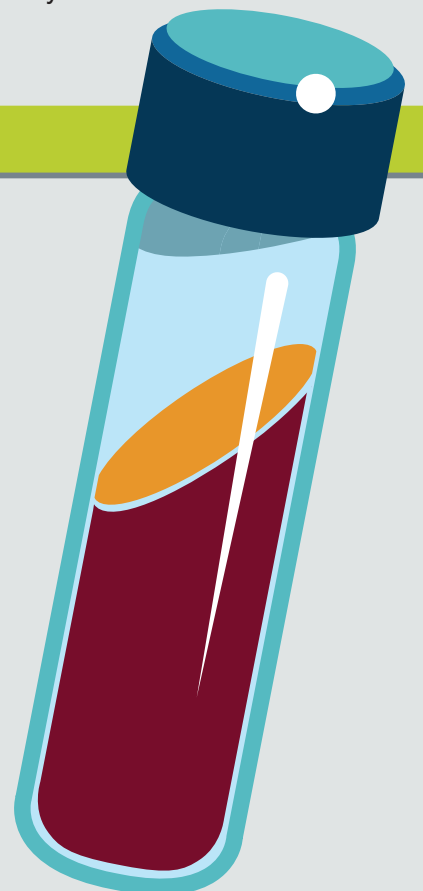
A minimum volume of 4 milliliters of whole blood preserved with EDTA is preferred but whole blood preserved with sodium polyanethol sulfonate (SPS), citrate, or with clot activator can be submitted for Ebola testing.

Specimens should be shipped at 2-8°C or frozen on cold-packs to CDC. Do not submit specimens to CDC in glass containers. Do not submit specimens preserved in heparin tubes.



Specimens other than blood may be submitted upon consult with CDC.

Standard labeling should be applied for each specimen. The requested test needs to be identified only on the requisition and CDC specimen submission forms.



DIAGNOSTIC TESTING FOR EBOLA PERFORMED AT CDC

Several diagnostic tests are available for detection of Ebola virus disease. Acute infections will be confirmed using a real-time RT-PCR assay (CDC test directory code CDC -10309 Ebola Identification) in a CLIA-accredited laboratory. Virus isolation may also be attempted. Serologic testing for IgM and IgG antibodies will be completed for certain specimens and to monitor the immune response in confirmed Ebola virus disease patients (#CDC-10310 Ebola Serology).

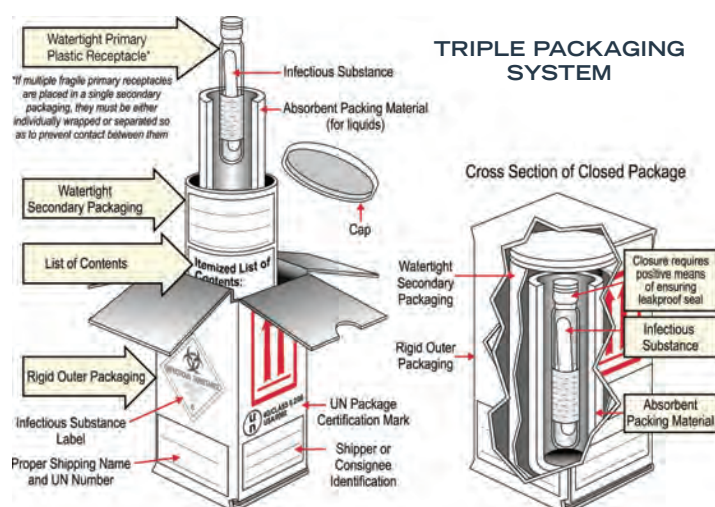
Lassa fever is also endemic in certain areas of West Africa and may show symptoms similar to early Ebola virus disease. Diagnostic tests available at CDC include but are not limited to RT-PCR, antigen detection, and IgM serology, all of which may be utilized to rule out Lassa fever in patients who test negative for Ebola virus disease.

TRANSPORTING SPECIMENS WITHIN THE HOSPITAL / INSTITUTION



In compliance with 29 CFR 1910.1030, specimens should be placed in a durable, leak-proof secondary container for transport within a facility. To reduce the risk of breakage or leaks, do not use any pneumatic tube system for transporting suspected Ebola virus disease specimens.

PACKAGING & SHIPPING CLINICAL SPECIMENS TO CDC



Specimens collected for Ebola virus disease testing should be packaged and shipped without attempting to open collection tubes or aliquot specimens.

Specimens for shipment should be packaged following the basic triple packaging system which consists of a primary container (a sealable specimen bag) wrapped with absorbent material, secondary container (watertight, leak-proof), and an outer shipping package.

THE SUBMISSION PROCESS

Contact your state and/or local health department and CDC (770-488-7100) to determine the proper category for shipment based on clinical history and risk assessment by CDC and to obtain detailed shipping guidance and required CDC submission documents. State guidelines may differ and state or local health departments should be consulted before shipping.

INFORMATION ON SHIPPING & TRACKING IS AVAILABLE AT

www.cdc.gov/ebola



What is contact tracing?

Contact tracing can stop the Ebola outbreak in its tracks



U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention

Contact tracing is finding everyone who comes in direct contact with a sick Ebola patient. Contacts are watched for signs of illness for 21 days from the last day they came in contact with the Ebola patient. If the contact develops a fever or other Ebola symptoms, they are immediately isolated, tested, provided care, and the cycle starts again—all of the new patient's contacts are found and watched for 21 days. **Even one missed contact can keep the outbreak going.**



Ebola

Ebola, previously known as Ebola hemorrhagic fever, is a severe, often fatal disease in humans and nonhuman primates (such as monkeys, gorillas, and chimpanzees).

Ebola is a rare and deadly disease caused by infection with a virus of the family *Filoviridae*, genus *Ebolavirus*. There are five identified *Ebolavirus* species, four of which have caused disease in humans: *Zaire ebolavirus*; *Sudan ebolavirus*; *Tai Forest ebolavirus*, formerly *Côte d'Ivoire ebolavirus*; and *Bundibugyo ebolavirus*. The fifth, *Reston ebolavirus*, has caused disease in nonhuman primates but not in humans.

Ebola is found in several African countries. The first Ebola species was discovered in 1976 near the Ebola River in what is now the Democratic Republic of the Congo. Since then, outbreaks have appeared sporadically in Africa.

The natural reservoir host of Ebola remains unknown. However, on the basis of available evidence and the nature of similar viruses, researchers believe that the virus is animal-borne with bats being the most likely reservoir. Four of the five subtypes occur in an animal host native to Africa.

Transmission

Because the natural reservoir host of Ebola has not yet been identified, the manner by which the virus first appears in a human at the start of an outbreak is unknown. However, researchers believe that the first patient becomes infected through contact with an infected animal.

When an infection does occur in humans, there are several ways the virus can be spread to others. These include:

- direct contact with the blood or body fluids (including but not limited to feces, saliva, urine, vomit and semen) of a person who is sick with Ebola
- contact with objects (like needles and syringes) that have been contaminated with the blood or body fluids of an infected person or with infected animals

The virus in the blood and body fluids can enter another person's body through broken skin or unprotected mucous membranes in, for example, the eyes, nose, or mouth. The viruses that cause Ebola are often spread among families and friends, because they come in close contact with blood or body fluids when caring for ill persons.

During outbreaks of Ebola, the disease can spread quickly within healthcare settings, such as clinics or hospitals. Exposure to Ebola can occur in healthcare settings where hospital staff are not wearing appropriate protective clothing including masks, gowns, gloves, and eye protection.

Dedicated medical equipment (preferably disposable, when possible) should be used by healthcare personnel providing care for someone sick with Ebola. Proper cleaning and disposal of instruments, such as needles and syringes, is also important. If instruments are not disposable, they must be sterilized before being used again. Without adequate instrument sterilization, virus transmission can continue and amplify an outbreak.

Signs and Symptoms

A person infected with Ebola is not contagious until symptoms appear.

Signs and Symptoms of Ebola typically include:

- Fever (greater than 38.6°C or 101.5°F)
- Severe headache
- Muscle pain
- Vomiting
- Diarrhea
- Stomach pain
- Unexplained bleeding or bruising

Symptoms may appear anywhere from 2 to 21 days after exposure to Ebola but the average is 8 to 10 days.

Recovery from Ebola depends on the patient's immune response. People who recover from Ebola infection develop antibodies that last for at least 10 years.

Risk of Exposure

Ebola is found in several African countries. Since 1976, Ebola outbreaks have occurred in the following countries:

- Democratic Republic of the Congo (DRC)
- Gabon
- South Sudan
- Ivory Coast
- Uganda
- Republic of the Congo (ROC)
- South Africa (imported)
- Guinea
- Liberia
- Sierra Leone
- Senegal
- Nigeria

Because the natural reservoir host of Ebola, and the manner in which transmission of the virus to humans remain unknown, risk assessment in endemic areas is difficult.

During outbreaks of Ebola, those at highest risk include healthcare workers and the family and friends of a person infected with Ebola. Healthcare workers in Africa should consult the [Infection Control for Viral Hemorrhagic Fevers In the African Health Care Setting](#) to learn how to prevent and control infections in these settings. Medical professionals in the United States should consult the [Infection Prevention and Control Recommendations for Hospitalized Patients with Known or Suspected Ebola Hemorrhagic Fever in U.S. Hospitals](#).

Diagnosis

Diagnosing Ebola in a person who has been infected for only a few days is difficult because the early symptoms, such as fever, are not specific to Ebola infection and are seen often in patients with more commonly occurring diseases, such as malaria and typhoid fever.

However, if a person has symptoms of Ebola and had contact with blood or body fluids of a person sick with Ebola, contact with objects that have been contaminated with blood or body fluids of a person sick with Ebola or contact with infected animals, the patient should be isolated and public health professionals notified. Samples from the patient can then be collected and tested to confirm infection.

Laboratory tests used in diagnosis include

Timeline of Infection	Diagnostic tests available
Within a few days after symptoms begin	<ul style="list-style-type: none">- Antigen-capture enzyme-linked immunosorbent assay (ELISA) testing- IgM ELISA- Polymerase chain reaction (PCR)- Virus isolation
Later in disease course or after recovery	<ul style="list-style-type: none">- IgM and IgG antibodies
Retrospectively in deceased patients	<ul style="list-style-type: none">- Immunohistochemistry testing- PCR- Virus isolation

Treatment

Currently there are no specific vaccines or medicines (such as antiviral drug) that have been proven to be effective against Ebola.

Symptoms of Ebola are treated as they appear. The following basic interventions, when used early, can significantly improve the chances of survival:

- Providing intravenous(IV) fluids and balancing electrolytes (body salts)
- Maintaining oxygen status and blood pressure
- Treating other infections if they occur

Timely treatment of Ebola is important but challenging since the disease is difficult to diagnose clinically in the early stages of infection. Because early symptoms such as headache and fever are not specific to *Ebolaviruses*, cases of Ebola may be initially misdiagnosed.

However, if a person has symptoms of Ebola and had contact with blood or body fluids of a person sick with Ebola, contact with objects that have been contaminated with blood or body fluids of a person sick with Ebola, or contact with an infected animal, the patient should be isolated and public health professionals notified. Supportive therapy can continue with proper protective clothing until samples from the patient are tested to confirm infection.

Experimental treatment has been tested and proven effective in some animals but has not yet been evaluated in humans.

Prevention

When cases of the disease do appear, there is increased risk of transmission within healthcare settings. Therefore, healthcare workers must be able to recognize a case of Ebola and be ready to use appropriate infection control measures. The aim of these techniques is to avoid contact with the blood or body fluids of an infected patient.

Appropriate procedures include:

- isolation of patients with Ebola from contact with unprotected persons
- wearing of protective clothing (including masks, gloves, impermeable gowns, and goggles or face shields) by persons caring for Ebola patients
- the use of other infection-control measures (such as complete equipment sterilization and routine use of disinfectant)
- Avoid touching the bodies of patients who have died from Ebola

Healthcare workers should also have the capability to request diagnostic tests or prepare samples for shipping and testing elsewhere.

CDC, in conjunction with the World Health Organization, has developed a set of guidelines to help prevent and control the spread of Ebola. Entitled Infection Control for Viral Hemorrhagic Fevers In the African Health Care Setting, the manual describes how to:

- recognize cases of viral hemorrhagic fever
- prevent further transmission in health care setting by using locally available materials and minimal financial resources

Facts *about* Ebola in the U.S.

You can't get Ebola
through air



You can't get Ebola
through water



You can't get Ebola
through food



You can only get Ebola from:

- Touching the blood or body fluids of a person who is sick with or has died from Ebola.
- Touching contaminated objects, like needles.
- Touching infected animals, their blood or other body fluids, or their meat.

Ebola poses no significant risk to the United States.



CS250586A

Faits *concernant* le virus **Ebola** aux États-Unis

Vous ne pouvez pas être atteint(e) par
le virus Ebola par le biais de l'air



Vous ne pouvez pas être atteint(e) par
le virus Ebola par le biais de l'eau



Vous ne pouvez pas être atteint(e)
par le virus Ebola par le biais
de l'alimentation



Vous pouvez uniquement être atteint par le virus Ebola en:

- Touchant le sang ou les fluides corporels d'une personne malade d'Ebola ou qui en est morte.
- Touchant des objets contaminés, tels que des seringues.
- Touchant des animaux infectés, leur sang ou autres fluides corporels, ou leur viande.

**Ebola ne pose pas de risque significatif
aux États-Unis.**



CS250586B (MLS 250519J)

Información *sobre* el virus del **Ébola** en EE. UU.

Usted no puede contraer
el virus del Ébola por el aire



Usted no puede contraer
el virus del Ébola por el agua



Usted no puede contraer el
virus del Ébola por los alimentos



Usted solo puede contraer el virus del Ébola por lo siguiente:

- Al tocar la sangre o los líquidos corporales de una persona que tiene la enfermedad del Ébola o que murió por ella.
- Al tocar objetos contaminados, como agujas.
- Al tocar animales infectados, su sangre, otros líquidos corporales o su carne.

**La enfermedad del Ébola no presenta un
riesgo significativo en los Estados Unidos.**



CS250586B (MLS250519I)